

WEST☐ **Generate Collection** **Print**

L1: Entry 1 of 2

File: USPT

Feb 16, 1999

US-PAT-NO: 5871464

DOCUMENT-IDENTIFIER: US 5871464 A

TITLE: Perfusion apparatus and methods for pharmaceutical delivery

DATE-ISSUED: February 16, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Tryggvason; Karl	Oulu			FI
Lukkarinen; Olavi	Oulu			FI
Heikkila ; Pirkko	Oulu			FI
Parpala; Teija	Oulu			FI

US-CL-CURRENT: 604/506; 604/132

CLAIMS:

We claim:

1. A method for the effective delivery of a viral vector gene therapy pharmaceutical to a target tissue comprising contacting a target tissue with a viral vector gene therapy pharmaceutical in a recirculating, oxygenated perfusate solution, where said solution is held at about 37.degree. C., such that there is effective delivery of the viral vector gene therapy pharmaceutical, and wherein said target tissue is located within a kidney.
2. The method of claim 1 wherein the target tissue is in vivo and in situ.
3. The method of claim 1 wherein the target tissue is ex vivo.

10/004161 called re: Restriction ^{Tues.} 9/9/03
I 1-11
II 12-16